August 14, 2017

From: Norm Odjick (Algonquin Anishinabeg Nation Tribal Council)

To: Nicole Frigault, Environmental Assessment Specialist
Canadian Nuclear Safety Commission

By email: cnsc.ea-ee.ccsn@canada.ca

NSD Submission

CEAA Reference number: 80122

Dear Ms. Frigault,

Attached please find the Algonquin Anishinabeg Nation Tribal Council's submission for the Near Surface Disposal's EIS.

Thank you for your consideration.

Norm Odjick

By email

August 16, 2017

Nicole Frigault
Environmental Assessment Specialist
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To Ms. Frigault,

Re. Comments concerning the proposed Near Surface Disposal Facility Project at the Chalk River Laboratories, CEAA Reference number 80122

The Algonquin Anishnabeg Nation Tribal Council (AANTC) was established in 1992 by five communities: Abitibiwinni, Eagle Village, Kitigan Zibi, Lac Simon and Long Point. Kitcisakik joined the Tribal Council in 1999, and the First Nation of Wahgoshig in Eastern Ontario became part of the political sector of the Tribal Council in 2000. The AANTC has two priorities: 1) the protection and advancement of the human rights of Indigenous peoples, particularly those of the Algonquin Nation; and 2) the provision of support to member communities in human resources management, policy, communications, and construction.

The ANNTC has received limited intervenor funding to participate in the current decision-making process concerning the NSDF.

This submission contains the AANTC's comments concerning the deficiencies in consultation efforts to date, which have been raised with the Canadian Nuclear Safety Commission (CNSC) in previous correspondence (including a letter from Grand Chief Verna Polson from May 12, 2017). This submission also contains comments concerning the Draft Environmental Impact Statement (EIS) for the Near Surface Disposal Facility (NSDF), informed in part by scientific experts jointly retained by the AANTC and fellow intervenor Ottawa Riverkeeper.

At this time, the AANTC submits that:

1) Consultation to date has been inadequate;
2) The EIS for the NSDF is incomplete; and
3) In no way should the NSDF, as currently proposed, be approved.

Each of these arguments will be discussed in more detail below.

Consultation to date has been inadequate

The federal government has a duty to consult and accommodate Indigenous peoples who may be affected by proposed development in their traditional territories. The federal government also has a duty to protect Aboriginal rights, recognized and affirmed in section 35 of the Canadian Constitution. However, due to several shortcomings of this current CNSC decision-making process, it cannot constitute proper consultation, nor can the AANTC determine how relevant Aboriginal rights are engaged by the proposed NSDF. Insufficient intervenor funding and the short timeframe for the current review unfairly limit the AANTC's involvement in this decision-making process.

While the AANTC will continue to provide comments on the NSDF for the Commission Tribunal's consideration in this matter, no aspect of these submissions should be interpreted as an acceptance of the current process. Nor do these submissions indicate any willingness to accept the potential impacts of the NSDF on any of the Aboriginal rights or interests of the AANTC or its member communities.

Insufficient intervenor funding for the current CNSC review of the NSDF has prevented the AANTC from retaining experts to assess potential impacts of the proposed NSDF on traditional land use in the areas that may be impacted by the proposed facility. This has also precluded any specific assessment of the proposed facility's potential impacts on relevant Aboriginal rights and interests.

This shortcoming is further aggravated by the fact that the Draft EIS also lacks any assessment of potential adverse impacts of the NSDF specific to Indigenous peoples' use of surrounding land and waters. For example, the EIS recognizes several species of fish as Valued Ecosystem Components (VEC) that could potentially be affected by the NSDF. These same species are also recognized as belonging to commercial, recreational, or Aboriginal fisheries (Table 5.1.2-1, p 5-4 of the EIS). However, there is no evidence of any consultation or any study involving Indigenous communities to verify whether the list of identified VECs properly reflects the species that contribute specifically to Aboriginal fisheries.

The same is true with respect to assessment endpoints and measurement indicators for the EIS' biodiversity assessment (Table 5.5.2-2, p 5-236 of the EIS). While this table notes that the EIS methodology includes consideration of ongoing fisheries' productivity, their ability to be self-sustaining, and support ecologically effective fish populations, these standards are very generalized, and may be informed by culturally-specific (Euro-Canadian) assumptions. It is not clear whether such standards employed in the EIS' methodology accurately reflect Indigenous conceptions of ecological value, nor is it clear whether these parameters accurately assess the wellbeing of potentially affected Aboriginal fisheries.

Ultimately, there is insufficient information and analysis in the EIS to determine whether its methodology is responsive to Indigenous peoples' unique rights and uses of the land and water bodies that may be impacted by the NSDF. Without sufficient intervenor funding, the AANTC has been unable to retain experts that would have been able to determine whether the EIS is

responsive to environmental impacts specific to the AANTC's member communities' rights and interests.

In addition to funding deficiencies, decision-making timeframes in the current CNSC review process have also been insufficient. The timeframes involved in this review effectively preclude any meaningful assessment of potential impacts of the NSDF to relevant Aboriginal rights and interests. While Canadian Nuclear Laboratories (CNL) and CNSC staff have presented high-level overviews of the NSDF project to the AANTC and the Kitigan Zibi Anishnabeg Nation, these meetings have raised more questions, than they have provided answers. At these meetings, CNL and CNSC representatives addressed questions and concerns with broad assurances, however, in the absence of reliable data to support these responses, and in the absence of relevant experts retained by the AANTC, these meetings could not be relied on to address communities' concerns in any meaningful or comprehensive way.

The EIS for the NSDF is incomplete

Having examined the expert reviews of the EIS prepared by Dr. Ole Hendrickson and Mr. Wilf Ruland, it appears as though the EIS is lacking important information concerning potential environmental impacts of the proposed NSDF.

Before the current decision-making process for the NSDF continues, the following gaps in the Draft EIS must be addressed:

<u>Concerning aquatic biota</u>

- More information needs to be provided in the EIS concerning the waste that will actually be held at the NSDF. A discussion of the ecological hazards of individual radionuclides that may be held in the NSDF should also be included.
- Assessments need to be included in the EIS of potential impacts of the NSDF on aquatic biota in the Ottawa River, and the river should be included as a Valued Component in the EIS.
- Information should be provided concerning the aquatic food chain and food web dynamics of ecosystems that may be impacted by the NSDF.
- There are discrepancies between CNL's aquatic species at risk monitoring results and information in the EIS that need to be addressed, as well as gaps in currently available species at risk information in the EIS.
- Existing data should be provided in the EIS concerning radiological contamination in moose and beaver that may interact with the NSDF and local environment.
- Potential impacts of the NSDF on wetlands immediately adjacent to the proposed waste-holding site must be addressed in the EIS.
- Cumulative impacts of decommissioning and remediating activities at the site must be considered along with NSDF construction and operation activities.
- Any potential genetic impacts of exposure to radionuclides should be assessed for aquatic organisms in the EIS.
- Impacts on aquatic biota of potential tritium releases from the NSDF should be assessed. These assessments should include potential effects on species during their developmental

life stages. A discussion of the impacts of organically-bound tritium on these species should also be included in the EIS as it has the potential to accumulate in aquatic food chains.

- Potential impacts of large precipitation events (including resulting erosion) on water quality and aquatic biota should be assessed in the EIS.
- Impacts of tree clearing (including hydrology and sediment transfer) on aquatic biota should be considered, as no mitigation measures seem to have been proposed to address potential risks.
- Potential impacts on the environment of the surface water management ponds should be better assessed in the EIS. This would include environmental impacts of the construction of these ponds.
- Consideration should be given in the EIS to the management of water flows associated with a major storm event after the bottom liner is installed.
- Additional information should be provided in the EIS concerning the base of the mound, including precautions to avoid wrinkling or puncturing the geomembrane that could impact the facility's integrity.
- An assessment of potential environment risks of overflows from berms and surface water management ponds should be included in the EIS. These assessments should take into account varying precipitation scenarios.
- Potential risks of NSDF water management ponds to organisms, including migratory waterfowl, should be assessed in the EIS.

<u>Concerning surface water and groundwater</u>

- The EIS requires more accurate measurements of current radioactive groundwater and surface water contamination around the Chalk River site. These measurements must in turn inform any determination of allowable contaminant releases from the NSDF. These measurements are required for the East Swamp as well as all downstream surface waters that will receive effluent from the NSDF's waste water treatment plant (WWTP).
- The EIS should include a discussion of alternatives to holding 10,000 m^3 of intermediate waste at the NSDF.
- More information should be provided in the EIS concerning surface and groundwater monitoring after the WWTP is decommissioned. Regular monitoring will be required for as long as the waste remains potentially hazardous, in order to ensure the NSDF's continued integrity. However, this does not seem to be acknowledged in the EIS or the NSDF's project plans which provide an arbitrary date at which all monitoring will cease.
- WWTP effluent criteria, including treatment targets, must be included in the EIS, especially in light of the alarming plan to potentially release an average of 140,000 Bq/L of tritium to surrounding waters from the WWTP.
- More information must be provided concerning the monitoring regimes for the WWTP while it is in operation.
- More information must be provided in the EIS concerning contingency responses to adverse monitoring results from the WWTP.
- Mechanisms for independent review and public dissemination of WWTP monitoring results should be discussed in the EIS.

It is also important to note that shortcomings in this Draft EIS are consistent with shortcomings in the initial project description – which was the document initially shared with the AANTC to notify it about this NSDF proposal. The AANTC has since had the opportunity to review the submissions of fellow intervenors Northwatch and the Canadian Environmental Law Association (CELA) concerning the information gaps in the initial project description, many if not all of which do not seem to have been addressed by CNL to date.

While remediating and safely storing legacy wastes at Chalk River is a worthy goal, it will only be realized if the facility is designed and constructed according to comprehensive and stringent environmental protection measures. The proposed plan and EIS must also be detailed enough to facilitate thorough public scrutiny, which can help to ensure that proposed environmental measures are sufficient. To date, neither the project description nor the Draft EIS have met this threshold.

In no way should the NSDF, as currently proposed, be approved by the CNSC

Mr. Ruland has found the NSDF proposal to be "ill-considered, poorly described, and inadequately assessed", causing him to have "grave concerns" about this project.

These concerns have been shared by the AANTC since first learning about the proposed NSDF (see Grand Chief Verna Polson's letter of May 12, 2017).

From Mr. Ruland's report, it appears that the location for the proposed NSDF is potentially problematic – the lack of natural features that could protect local water sources from malfunctions at the MSDF mean that engineered features would be solely responsible for ensuring the integrity of the facility. This could increase the risk associated with human error or future malfunctions at the facility, as they would not be mitigated by any natural geological or hydrological features.

While the AANTC has grave concerns about the current plans for the NSDF in their entirety, it also wishes to draw the Commission's attention to the inappropriateness of permitting any intermediate level waste (ILW) to be held at the facility. As Mr. Ruland has mentioned, holding intermediate level waste in an above ground mound is contrary to International Atomic Energy Agency (IAEA) standards. The late addition of ILW to the plans for the NSDF appears to be a potentially very dangerous afterthought.

As the EIS shows, radioactive contamination of the Perch Creek and Perch Lake are already considerably elevated. As such, it is imperative that any developments at the Chalk River site effectively remediate the damage that has already been done over the last 60 decades to this land, and not put the local ecosystem under any further risk. The NSDF, as currently proposed, does not appear to meet this threshold.

Norm Odjick
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Algonquin Anishinabeg Nation Tribal Council